

AMENDMENTS

In the claims:

Please amend the claims as follows.

Please cancel claims 1-98.

Claims 1-98 (Canceled).

Please add the following new claims.

99. (New) An isolated peptide comprising the amino acid sequence CREKA (SEQ ID NO:1), said peptide having a length of less than 100 residues.

100. (New) The isolated peptide of claim 99, which has a length of less than 50 residues.

101. (New) The isolated peptide of claim 99, which has a length of less than 20 residues.

102. (New) A conjugate comprising a therapeutic agent linked to a homing molecule comprising the amino acid sequence CREKA (SEQ ID NO:1), wherein said homing molecule selectively homes to tumor vasculature and selectively binds collagen.

103. (New) The conjugate of claim 102, wherein said homing molecule selectively binds non-helical collagen.

104. (New) The conjugate of claim 102, wherein said homing molecule selectively homes to breast tumor vasculature.

105. (New) The conjugate of claim 102, wherein said homing molecule selectively binds collagen IV.

106. (New) The conjugate of claim 105, wherein said homing molecule selectively binds denatured collagen IV in preference to native collagen IV.

107. (New) The conjugate of claim 105, wherein said homing molecule selectively binds the alpha 2 chain of collagen IV.

108. (New) The conjugate of claim 102, wherein the peptide portion of said conjugate has a length of at most 200 residues.

109. (New) The conjugate of claim 108, wherein the peptide portion of said conjugate has a length of at most 50 residues.

110. (New) The conjugate of claim 102, wherein said therapeutic agent is a cancer chemotherapeutic agent.

111. (New) The conjugate of claim 102, wherein said therapeutic agent is a cytotoxic agent.

112. (New) The conjugate of claim 102, wherein said therapeutic agent is an anti-angiogenic agent.

113. (New) The conjugate of claim 102, wherein said therapeutic agent is a polypeptide.

114. (New) The conjugate of claim 102, wherein said therapeutic agent is a nucleic acid molecule.

115. (New) The conjugate of claim 102, wherein said therapeutic agent is a small molecule.

116. (New) The conjugate of claim 102, which comprises a virus.

117. (New) The conjugate of claim 116, which comprises a phage.

118. (New) The conjugate of claim 102, comprising at least two homing molecules that each selectively homes to tumor vasculature and selectively binds collagen.

119. (New) The conjugate of claim 118, wherein said at least two homing molecules each independently comprises the amino acid sequence CREKA (SEQ ID NO: 1).

120. (New) The conjugate of claim 102, comprising at least ten homing molecules that each selectively homes to tumor vasculature and selectively binds collagen.

121. (New) The conjugate of claim 120, wherein said at least ten homing molecules each independently comprises the amino acid sequence CREKA (SEQ ID NO: 1).

122. (New) The conjugate of claim 102, comprising at least 100 homing molecules that each selectively homes to tumor vasculature and selectively binds collagen.

123. (New) The conjugate of claim 122, wherein said at least 100 homing molecules each independently comprises the amino acid sequence CREKA (SEQ ID NO: 1).

124. (New) The conjugate of claim 122, which comprises a virus.

125. (New) The conjugate of claim 124, wherein said virus is a phage.

126. (New) A method of directing a moiety to tumor vasculature in a subject, comprising administering to the subject a conjugate which comprises said moiety linked to a homing molecule comprising the amino acid sequence CREKA (SEQ ID NO:1), wherein said homing molecule selectively homes to tumor vasculature and selectively binds to collagen, thereby directing said moiety to tumor vasculature.

127. (New) The method of claim 126, wherein said homing molecule selectively binds non-helical collagen.

128. (New) The conjugate of claim 126, wherein said homing molecule selectively homes to breast tumor vasculature.

129. (New) The conjugate of claim 126, wherein said homing molecule selectively binds collagen IV.

130. (New) The conjugate of claim 129, wherein said homing molecule selectively binds denatured collagen IV in preference to native collagen IV.

131. (New) The conjugate of claim 129, wherein said homing molecule selectively binds the alpha 2 chain of collagen IV.

132. (New) The method of claim 126, wherein the peptide portion of said conjugate has a length of at most 200 residues.

133. (New) The method of claim 132, wherein the peptide portion of said conjugate has a length of at most 50 residues.

134. (New) The method of claim 126, wherein said moiety is a therapeutic agent.

135. (New) The method of claim 134, wherein said therapeutic agent is a cancer chemotherapeutic agent.

136. (New) The method of claim 134, wherein said therapeutic agent is a cytotoxic agent.

137. (New) The method of claim 134, wherein said therapeutic agent is an anti-angiogenic agent.

138. (New) The method of claim 134, wherein said therapeutic agent is a polypeptide.

139. (New) The method of claim 134, wherein said therapeutic agent is a nucleic acid molecule.

140. (New) The method of claim 134, wherein said therapeutic agent is a small molecule.

141. (New) The method of claim 134, wherein said moiety is a detectable agent.

142. (New) The method of claim 141, wherein said detectable agent is selected from the group consisting of fluorescein and rhodamine.

143. (New) The method of claim 134, wherein said moiety is a virus.

144. (New) The method of claim 143, wherein said moiety is a phage.

145. (New) A method of imaging tumor vasculature in a subject, comprising

(a) administering to the subject a conjugate comprising a detectable agent linked to a homing molecule comprising the amino acid sequence CREKA (SEQ ID NO:1), wherein said homing molecule selectively homes to tumor vasculature and selectively binds collagen; and

(b) detecting said conjugate, thereby imaging said tumor vasculature.

146. (New) The method of claim 145, wherein said homing molecule selectively binds non-helical collagen.

147. (New) The method of claim 145, wherein said tumor vasculature is breast tumor vasculature.

148. (New) The method of claim 145, wherein the peptide portion of said conjugate has a length of at most 200 residues.

149. (New) The method of claim 145, wherein the peptide portion of said conjugate has a length of at most 50 residues.

150. (New) The method of claim 145, wherein said detectable agent is a radionuclide.

151. (New) The method of claim 150, wherein said radionuclide is selected from the group consisting of indium-111, technetium-99, carbon-11, and carbon-13.

152. (New) The method of claim 145, wherein said detectable agent is a fluorophore.

153. (New) The method of claim 152, wherein said fluorophore is selected from the group consisting of fluorescein and rhodamine.

154. (New) A method of reducing the number of tumor vessels in a subject, comprising administering to the subject a conjugate which comprises a therapeutic agent linked to a homing molecule comprising the amino acid sequence CREKA (SEQ ID NO:1), wherein said homing molecule selectively homes to tumor vasculature and selectively binds collagen, thereby reducing the number of tumor vessels in said subject.

155. (New) The method of claim 154, wherein said homing molecule selectively binds non-helical collagen.

156. (New) The method of claim 154, wherein said tumor vessels are breast tumor vessels.

157. (New) The method of claim 154, wherein the peptide portion of said conjugate has a length of at most 200 residues.

158. (New) The method of claim 154, wherein the peptide portion of said conjugate has a length of at most 50 residues.

159. (New) The method of claim 154, wherein said therapeutic agent is a cancer chemotherapeutic agent.

160. (New) The method of claim 154, wherein said therapeutic agent is a cytotoxic agent.

161. (New) The method of claim 154, wherein said therapeutic agent is an anti-angiogenic agent.

162. (New) A method of treating cancer in a subject, comprising administering to the subject a conjugate which comprises a therapeutic agent linked to a homing molecule comprising the amino acid sequence CREKA (SEQ ID NO:1), wherein said homing molecule selectively homes to tumor vasculature and selectively binds to collagen.

163. (New) The method of claim 162, wherein said homing molecule selectively binds non-helical collagen.

164. (New) The method of claim 162, wherein said homing molecule selectively binds collagen IV.

165. (New) The method of claim 164, wherein said homing molecule selectively binds denatured collagen IV in preference to native collagen IV.

166. (New) The method of claim 164, wherein said homing molecule selectively binds the alpha 2 chain of collagen IV.

167. (New) The method of claim 162, wherein the peptide portion of said conjugate has a length of at most 200 residues.

168. (New) The method of claim 162, wherein the peptide portion of said conjugate has a length of at most 50 residues.

169. (New) The method of claim 162, wherein said therapeutic agent is a cancer chemotherapeutic agent.

170. (New) The method of claim 162, wherein said therapeutic agent is a cytotoxic agent.

171. (New) The method of claim 162, wherein said therapeutic agent is an anti-angiogenic agent.

172. (New) The method of claim 162, wherein said therapeutic agent is a polypeptide.

173. (New) The method of claim 162, wherein said therapeutic agent is a nucleic acid molecule.

174. (New) The method of claim 162, wherein said therapeutic agent is a small molecule.

175. (New) The method of claim 162, wherein said moiety comprises a virus.

176. (New) The method of claim 175, wherein said virus is a phage.

177. (New) The method of claim 162, wherein said cancer is breast cancer.